

ART. XIII.—*On Some New Species of Catenicella and Dictyopora; and on Urceolipora, a New Genus of Polyzoa.*

By P. H. MACGILLIVRAY, M.A., M.R.C.S.

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IN the present paper are described two species of *Catenicella*, two of *Dictyopora*, and a new genus for which I propose the name of *Urceolipora*. The new genus resembles *Calwellia* in its individual cells, but, unlike all the *Gemellariidæ*, these are not arranged in pairs, but alternately. I do not at present, however, propose a new family for its reception. The two species of *Dictyopora*, for which, with many other additions to the marine fauna of Victoria, we are indebted to my able and enthusiastic friend, Mr. J. Bracebridge Wilson, will be fully illustrated in Professor M'Coy's *Decades*, as well as the previously known *D. grisea*. I retain *Dictyopora* provisionally in the *Escharidæ*, although I think it will be advisable to constitute a new family, *Adeonidæ*, for the reception of this genus and *Adeona* proper. In this connection I may mention that in consequence of our rapidly increasing knowledge of the Victorian species and the many new forms, especially in the *Escharine* group, I have thought it advisable to adhere in the description of the *Polyzoa* appearing in the *Decades*, as far as possible, to Busk's classification. When the descriptions and illustrations are completed, a systematic arrangement of the families and genera can be more satisfactorily given than could be done at present.

Family, CATENICELLIDÆ.

Genus, CATENICELLA.

C. concinna.

Cells elliptical, or including the wide lateral processes, vase-shaped. Mouth arched above, with a deep rounded sinus in the nearly straight lower lip. A close series of about 12 (5 or 6 on each side) rounded foramina, arranged along the margin of the cell. The lateral processes are very wide, extending the whole length of the cell; they are divided into two portions by a partition extending outwards and downwards from the top of the cell, the upper

part triangular, with the point directed upwards and outwards. In the outer edge, immediately below the partition, is a small avicularian cup. Back of cell minutely sulcate.

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C. Wilsoni.

Cells large, squared at both ends. Mouth deeply arched above, the lower lip straight and entire. A space down the centre of the cell, of the same width as the mouth, occupied by a double row of (usually) 7 large, closely set, shallow fenestræ. The sides slope backwards, from the margin of the fenestrate area, leaving on each side a smooth, slightly hollowed space, nearly as wide as the central division, with an avicularian chamber at the upper angle. Back of cell with a prominent central band extending the whole length, and at about a third of the distance from the top, giving off a similar transverse band on each side. Ovicell large, galeate, terminal, thickly fenestrate.

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Family, ————— ?

Genus, URCEOLIPORA.

Polyzoary continuous, dichotomously-branched; cells urceolate, alternate, in a more or less regular double series, the front of the cells being directed outwards. Ovicell galeate, surmounting a cell and united to the base of the cell above.

U. nana.

This species forms small, dichotomously-branched, rigid tufts, about half an inch high, growing on Retepora and other Polyzoa. The cells are alternately arranged in a double row, the fronts facing outwards. They are urceolate, much elongated and narrowed downwards. The mouth is terminal, opening almost horizontally upwards, and at each side is a small projecting process. The ovicell is of moderate size, galeate, surmounting a cell opening and incorporated with the base of the cell above; surface minutely cribriform, or marked with radiating, beaded lines.

Family, ESCHARIDÆ.

Genus, DICTYOPORA.

D. Wilsoni.

Of this species I have only seen one specimen. It consists of a tuft of four separate plates, the stems arising from the

* This species may prove to be identical with Maplestone's *C. pulchella*, the figure of which it much resembles, but the ornamentation in front of which is described as consisting of round bosses.

same basis. The polyzoary is thin, fan-shaped, somewhat contorted. The plates are about four inches high, and the broadest is about the same width. The separate flexible stems are up to an inch long, and from an eighth to a quarter of an inch wide. To one of the plates there is a secondary plate attached, at an acute angle, and in another there are several plates so arranged as to form two compartments, one very small, the other two inches deep, half an inch wide in one diameter, and one and a-quarter in the other at the orifice. In all, slightly raised ridges extend, dividing from the stem to a variable distance up the plate. The fenestræ are of a considerable size, $1\frac{1}{2}$ to 3 mm. wide, the intervening spaces about 4 mm.

The cells are arranged in oblique lines. They are trapezoid, broad, and more or less rounded above, much attenuated below. The mouth is circular, or nearly so. Below the mouth and about the middle of the cell there is frequently an avicularium, with a small triangular mandible directed obliquely upwards, with a deep pit at its base. In many cells there is only a large round pore, without any mandible. The surface of the cell is somewhat raised on each side of the avicularian pit (frequently more so on one side), and towards the sides of the mouth. It is obscurely pitted. The margin of the foramina is nearly plain, and not divided into distinct, abortive cells or nodules, as in *D. grisea* and *cellulosa*.

The structure of the cells in Kirchenpauer's *Adeona arborescens* seems to resemble that of the present species. They are, however, sufficiently distinguished by the prolongations of the stem in the frond, which, in the former, are very thick and prominent, and extend for a long distance on the polyzoary, while in *D. Wilsoni* they are short and very slightly elevated.

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D. albida var *avicularis*.

I have examined two imperfect specimens of a species seemingly identical with *Adeona albida* (Kirchenp.), but having a number of large avicularia round the borders of the fenestræ, which could scarcely have been overlooked by Dr. Kirchenpauer. I propose to name it *D. albida* var *avicularis*. One specimen is four inches by two, the other rather narrower. Both are broken, and want the stem. The polyzoary is twisted and cellular, like that of *D. cellulosa*.

